Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

24. (Currently amended) A method of manufacturing an electrochemical cell, the method comprising:

selecting a lambda manganese oxide that, when incorporated into a positive electrode of a cell, can provide the cell with a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 130 mAh/g;

incorporating the lambda manganese oxide into ~~providing~~ a positive electrode ~~including a lambda-manganese oxide~~; and

~~after providing the positive electrode,~~ forming a cell including the positive electrode and a lithium negative electrode,

wherein the cell has a closed circuit voltage of about 4V and a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 130 mAh/g.

25. (Currently amended) The method of claim 24, wherein selecting the lambda manganese oxide ~~providing the positive electrode~~ includes preparing lambda-manganese dioxide by a method comprising:

contacting water with a compound of the formula $Li_{1+x}Mn_{2-x}O_4$, wherein x is from –0.02 to +0.02;

adding an acid to the water and compound until the water has a pH of 1 or less;

separating a solid from the water and acid; and

drying the solid at a temperature of 120°C or below to obtain the lambda-manganese dioxide.

26. (Previously presented) The method of claim 25, wherein the compound has a BET surface area of between 1 and 10 m^2/g.

27. (Previously presented) The method of claim 25, wherein the compound has a spinel-type crystal structure.

28. (Previously presented) The method of claim 25, wherein the solid is dried at a temperature between 30°C and 90°C.

29. (Previously presented) The method of claim 25, wherein the solid is dried at a temperature between 50°C and 70°C.

30. (Previously presented) The method of claim 25, wherein x is from –0.005 to +0.005.

31. (Previously presented) The method of claim 25, wherein contacting water and the compound includes forming a slurry.

32. (Previously presented) The method of claim 31, wherein the slurry is maintained at a temperature below 50°C.

33. (Previously presented) The method of claim 31, wherein the temperature of the slurry is held substantially constant during the addition of acid.

34. (Previously presented) The method of claim 25, wherein the acid comprises sulfuric acid, nitric acid, perchloric acid, hydrochloric acid, toluenesulfonic acid or trifluoromethylsulfonic acid.

35. (Previously presented) The method of claim 25, wherein the pH is 0.7 or less.

36. (Previously presented) The method of claim 25, wherein the acid has a concentration of between 1 and 8 molar.

37. (Previously presented) The method of claim 25, further comprising washing the solid separated from the liquid phase with water until the washings have a pH of between 6 and 7.

38. (Previously presented) The method of claim 24, wherein the cell comprises a primary cell.

39. (Cancelled)

40. (Previously presented) The method of claim 24, wherein the cell has a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of greater than 135 mAh/g.

41. (Previously presented) The method of claim 24, wherein the cell has a specific discharge capacity at a nominal discharge rate of 1 mA/cm^2 to a 3V cutoff of 140 mAh/g or greater.

42. (Previously presented) The method of claim 24, wherein the lambda-manganese oxide has a BET surface area of greater than 4 m^2/g.

43. (Previously presented) The method of claim 24, wherein the lambda-manganese oxide has a BET surface area of greater than 8 m^2/g.

44. (Previously presented) The method of claim 24, wherein the lambda-manganese oxide has a total pore volume of from 0.05 to 0.15 cubic centimeters per gram.